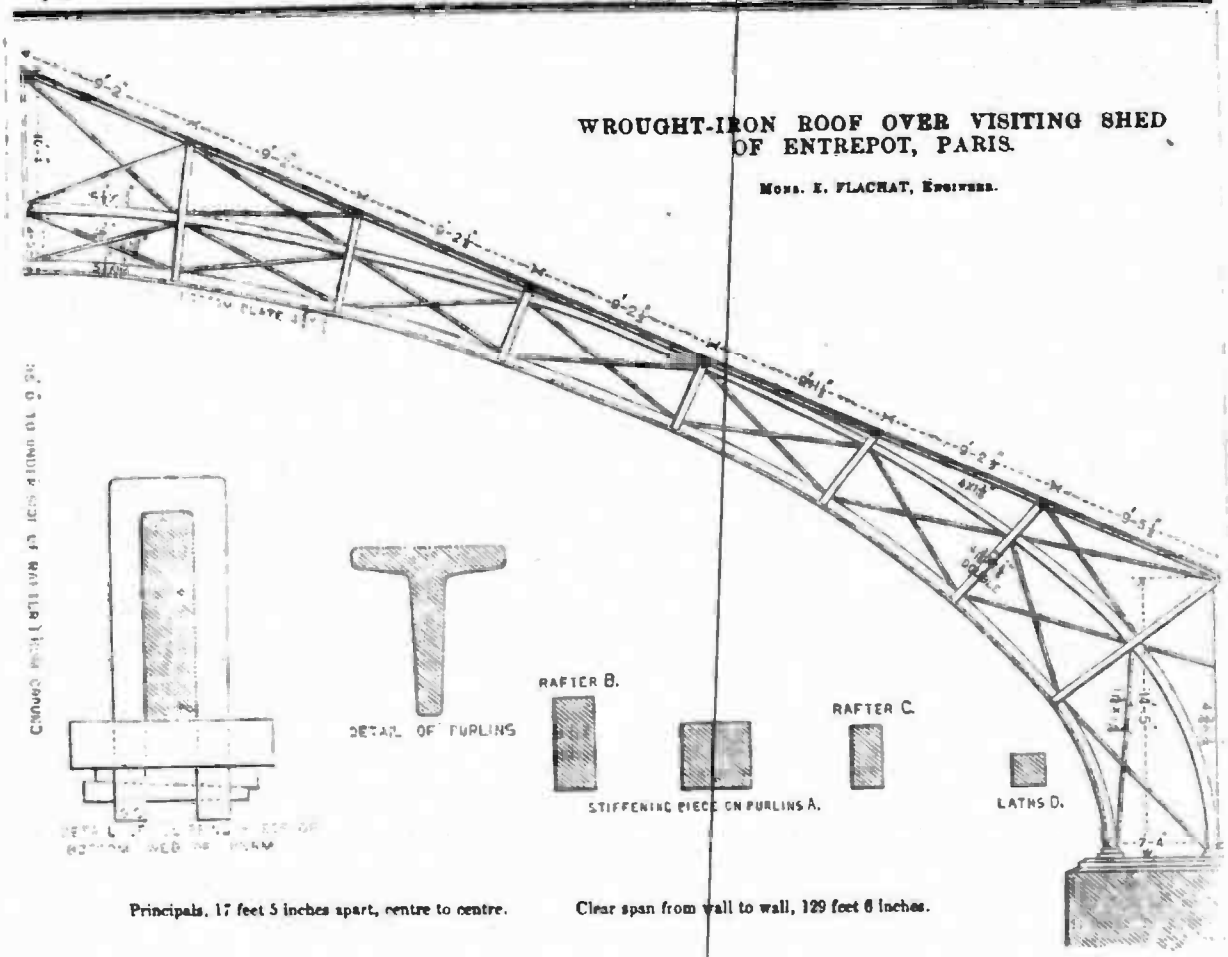
WROUGHT-IRON ROOF OVER VISITING SHED OF ENTREPOT, PARIS.
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DETAIL OF PURLINS
RAFTER B.
RAFTER C.
STIFFENING PIECE ON PURLINS A.
LATHS D.
Principals, 17 feet 5 inches apart, centre to centre.
Clear span from wall to wall, 129 feet 6 inches.

THE ROOF OVER THE VISITING SHED OF THE ENTREPOT DES DOUANES IN PARIS.

FRANCE, from its position on the Atlantic coast, is often used for the purpose of transit for colonial produce by such countries as Switzerland, Baden, and Bavaria. To develope this traffic the Government have granted facilities, by allowing the goods to be warehoused without previous payment of the duties, until the said goods are entered for consumption; or, in the case of their being purchased for a foreign market, they are allowed to traverse the country free of duty, if secured by a leaden seal affixed by the custom-house officers. The warehouses in which such goods are stored are called *entrepôts*, or bonding warehouses; they are of two sorts, the *entrepôt réel* and the *entrepôt fictif*.

The *entrepôts réels* are built by, and at the expense of, the municipalities of the towns which have the privilege. The municipalities are responsible to the Government for the payment of the duties; they name and pay the warehousemen, and they receive the rents charged upon the goods, according to a regular tariff, debated in the municipal council, and approved by the Minister of the Interior: the said sums received for rents being applied to municipal purposes. The duties levied are calculated upon the outgoing weights or quantities.

The *entrepôts fictifs* are private warehouses, belonging to individuals, who enter into security to the Government for the payment of the amount of duties calculated upon the ingoing weights or quantities,—all loss from theft, waste, drying, or evaporation being at the risk of the *entrepositeur*. The custom-house authorities have one key of the warehouse, the proprietor another: nothing is allowed to be withdrawn unless the custom-house has been informed, and an agent be present. In the *entrepôts réels*, the rents are higher, but there is less risk; in the *entrepôts fictifs*, the goods are more under the personal inspection of the proprietor.

The *entrepôt* of Paris, of which the roof before us forms a part, is an *entrepôt réel*. It contains a series of magazines for such goods as are intended to station there any length of time, and two large sheds for packages deposed in *transitu*, with a courtyard between, where such goods as merely pass through without stopping, or such as are entered for immediate consumption, are visited. This courtyard was originally uncovered, but such inconvenience arose from the exposure of the goods, that the iron roof in question was erected.

It must be observed, that the side walls are very thin. The roofs of the sheds had no bearing in them, nor did they serve for any other purpose than to inclose the said sheds. The roof was therefore obliged to be constructed without any support from the walls.

The roof, of 129 feet 6 inches span, consists, as in the drawing, of a series of framed wrought-iron elliptical girders, the bottom web of which is in two pieces, with two collars, as shown in detail, to clip the lower part well up to the other, thus forming a reversed T; the upper part is without flange. These elliptical bars are kept in place by cross pieces, and are connected with the principal rafters by flat ties.

The purlins are of T iron; they are supported by arched bars in the middle of their bearing, the said bars forming also cross braces to resist the lateral movement of the roof.

On the back of the principal rafters, and over the purlins, the stiffening pieces A are placed, to take, firstly, the intermediate rafters B, of an extra depth and scantling, which are notched down so as to range flush on top, and are about 4 feet 4½ inches apart; and they also receive the common rafters C, which are 1 foot 5½ inches nearly from centre to centre. Between these rafters laths D are let in (by notching down), so as to be flat with the rafters; the laths are about 19½ inches apart.

The whole is covered with galvanized iron.

Each rib weighs about 4 tons $\frac{1}{10}$ths; there are in the whole shed about 1,550 yards superficial. The price of wrought-iron is, in Paris, about 6d. per lb. This roof cost, per yard, 4*l*. 12s. 10d.

It was executed in the year 1846, we believe.

There are skylights all down the centre, and at intervals on the sides between the second and third purlins from the bottom.

PROFESSOR COCKERELL'S LECTURES ON ARCHITECTURE, AT THE ROYAL ACADEMY.

IN his fourth lecture, January 24, Professor Cockerell reminded the students that the improvement they so ardently desired depended mainly on themselves, and rather on the methods of their own application, their diligence, susceptibility, and ingenuous attention to the hints, precepts, and examples that were presented to them, than from any external aid and advantages, however zealously administered by the professors. Their notes should be carefully stored, their impressions recorded, the album should be their magazine and the history of their studious lives: ingenuous admiration, according to Plato, was the very principle of philosophy. Faith, humility, and charity were no less essential in the art of learning than in the conduct of life, and deplorable was the loss (to all of us) of sound instruction, from self-sufficiency and supercilliousness. At the same time the student should think for himself also, and it often happens that early intuitive impressions may be trusted rather than those which fashion or opinion dictates; and the fact seems hardly credible, that every twenty years will witness (and by universal consent) a new fashion, even in so grave a matter of architecture. How much, then, should fashion be distrusted, the impressions of the natural and unsophisticated mind be maintained, and the true principles of the art be cultivated, sought, and respected!

All opportunities of travel in this great metropolis and in this great country, should be seized, so that the habit of observation, and an original store of our own impressions, may be made as early as can be; whatever notes we make should be complete. It was the wise injunction of Leonardo da Vinci, to finish

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